



Purchases Report

March 2024

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Important notes:

As of November 2016, unless explicitly specified otherwise, RTA uses 3-month moving average for reporting on inventory (including historical data), hence, affecting calculated values of purchases and Inventory-to-Sales Ratio. In this way, any exaggerations that might be manifest in monthly purchases data, due to regular inventory counts by members, are not emphasized.

Highlighted areas in the graphs represent time of recessions.

Explanation about how to read box plots and histograms can be found in the Appendix section.

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Disclaimer: The data and report presented herein are based solely on RTA member monthly reports on production and inventory. Occasionally, members send corrections to previously submitted data. If and when these corrections are received they are incorporated at that time. Users of this report should note while all care is taken to accurately compile the data submitted by member companies, that no warranty is made as to the accuracy of any RTA member reports.

Highlights

In March, the twelve months rolling total of purchases and production continued an upward trend but at a slower pace than in February. Analysis of quarterly data showed production significantly above third quartile of expected values while purchases were just below third quartile. Analysis of monthly data showed similar results.

Long-Term Trends

Production rose at a 20.9% annual rate.

Purchases rose at a 4.5% annual rate.

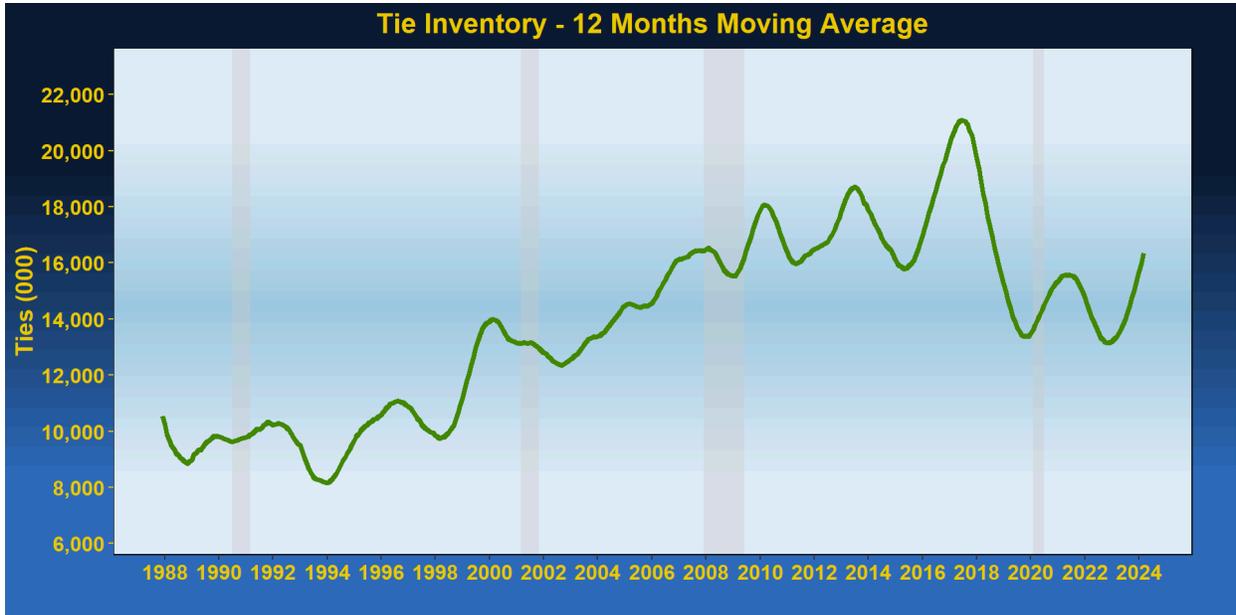
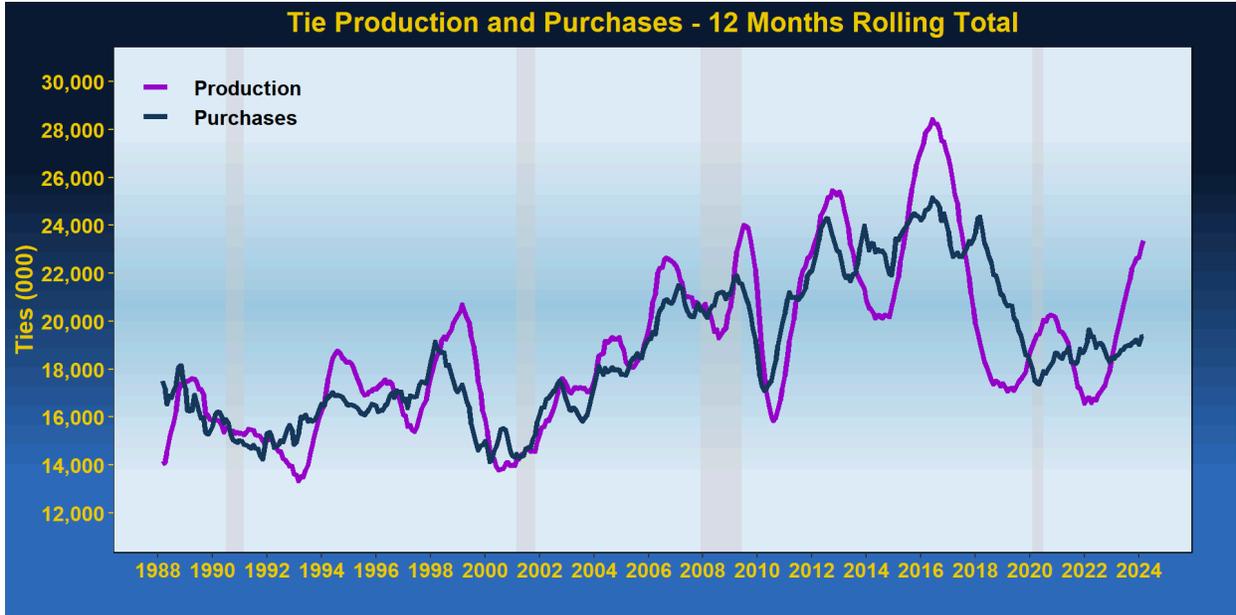
Inventory's 12 month moving average (12MMA) rose by 22.4% from a year ago levels.

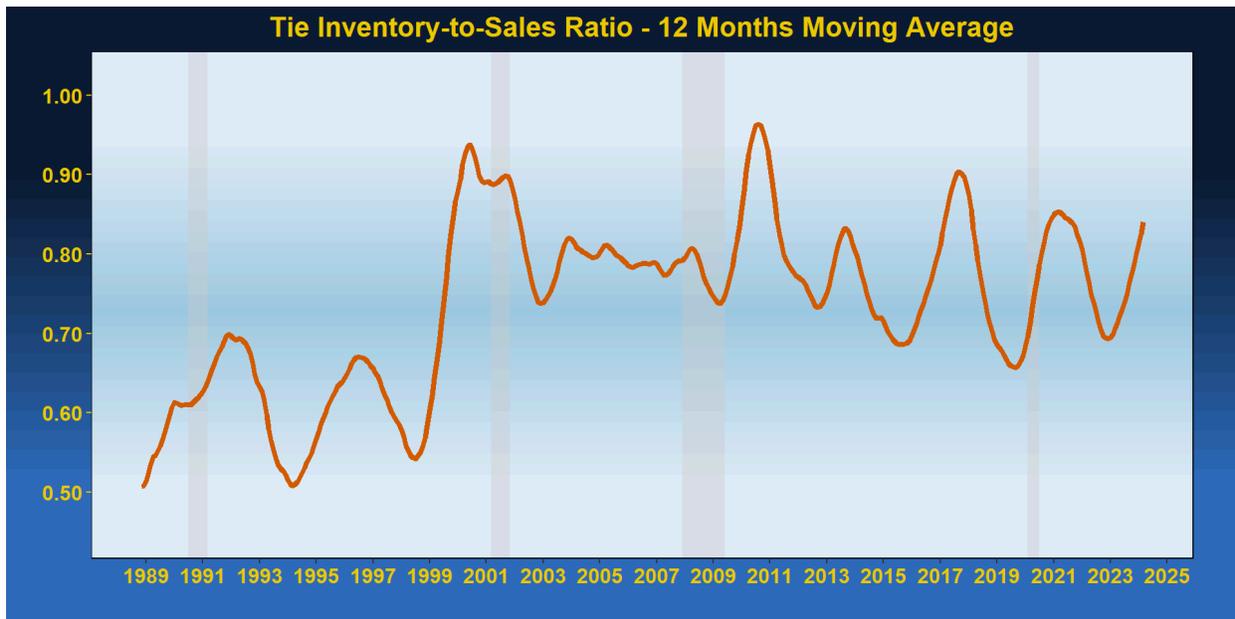
Inventory-to-Sales Ratio's 12MMA expanded from 0.71 to 0.84.

Table of Annual Observations

Production and Purchases are 12 months rolling totals, Inventory and ISR are 12MMA

Date	Production	Purchases	Inventory	ISR
March 2023	19,326	18,545	13,350	0.71
March 2024	23,368	19,379	16,346	0.84





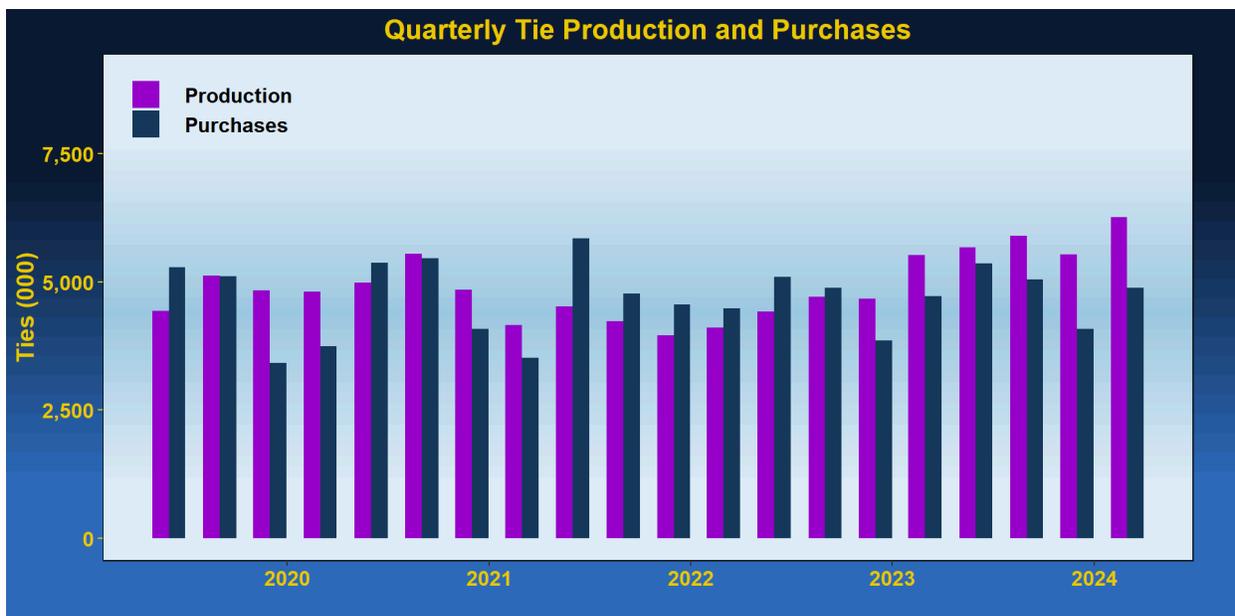
Analysis of Quarterly Data

Production in Q1 grew by 13.2% from last quarter and increased by 13.4% from a year ago. For the same intervals, purchases expanded by 19.6% and increased by 3.6% respectively. Inventory's 3MMA rose by 8.1% from last quarter and expanded by 27.8% from a year ago levels. From Q4 2023 to Q1 2024, the 3MMA of Inventory-to-Sales Ratio advanced from 0.86 to 0.93. One year ago, the ratio was 0.76.

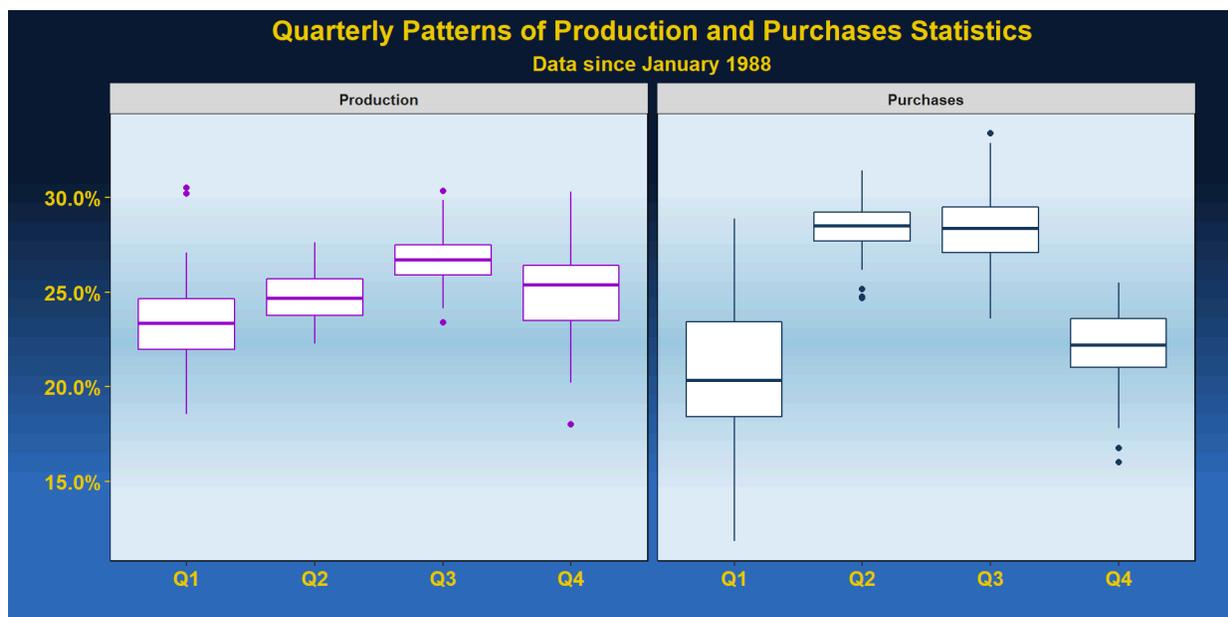
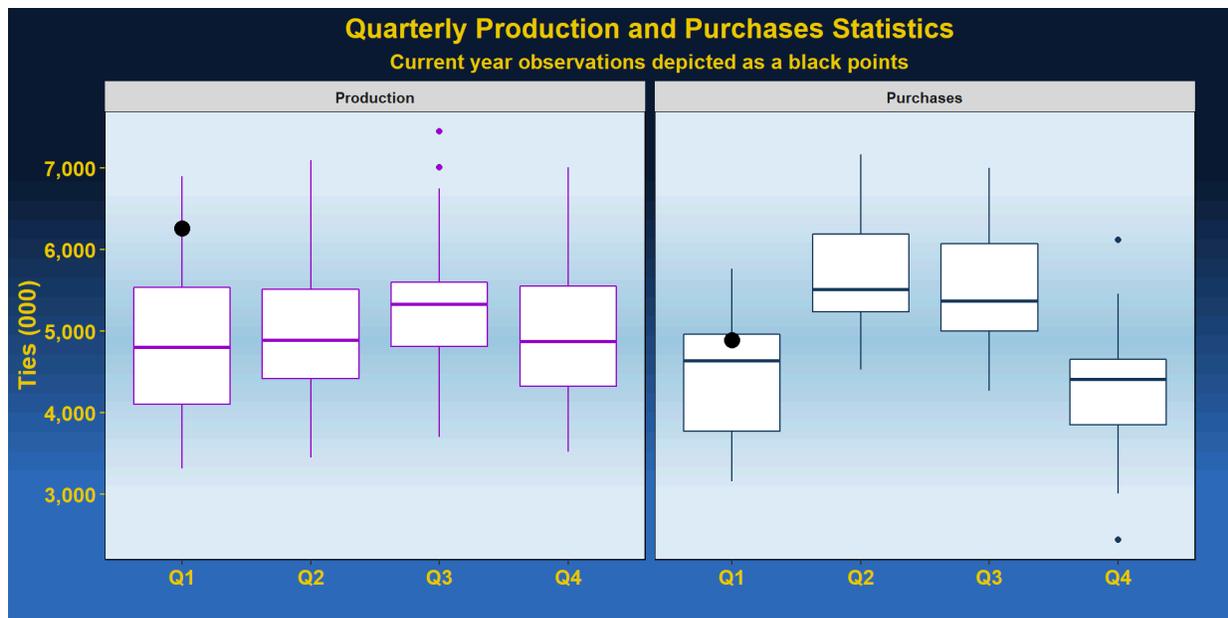
Table of Quarterly Observations

Production and Purchases Quarterly Sum, Inventory and ISR - 3MMA

Date	Production	Purchases	Inventory	ISR
March 2023	5,524	4,714	14,325	0.76
December 2023	5,530	4,086	16,936	0.86
March 2024	6,263	4,886	18,313	0.93



Quarterly pattern of production and purchases uses data from January 2000. The top graph shows data analysis within each quarter. It shows the median, upper quartile and lower quartile boundary (a more detailed explanation is available in the Appendix section). It also displays what the production and purchases were in each quarter of reporting year represented by black points in relation to quarterly statistical values. The second graph shows the contribution of each quarter to the total annual production and purchases.



Analysis of Monthly Data

Production expanded by 0.5% from last month and advanced by 11.5% from a year ago.

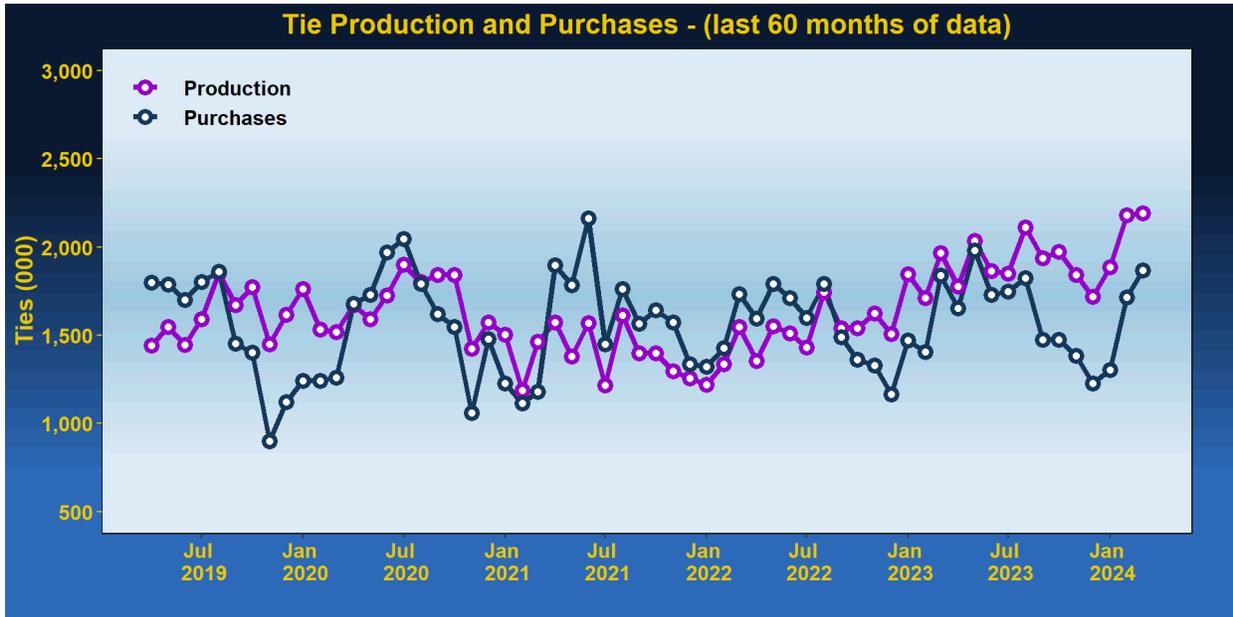
For the same time intervals, purchases expanded by 8.8% and grew by 1.5% respectively.

Inventory levels advanced by 1.8% from last month and expanded by 27.8% from a year ago levels.

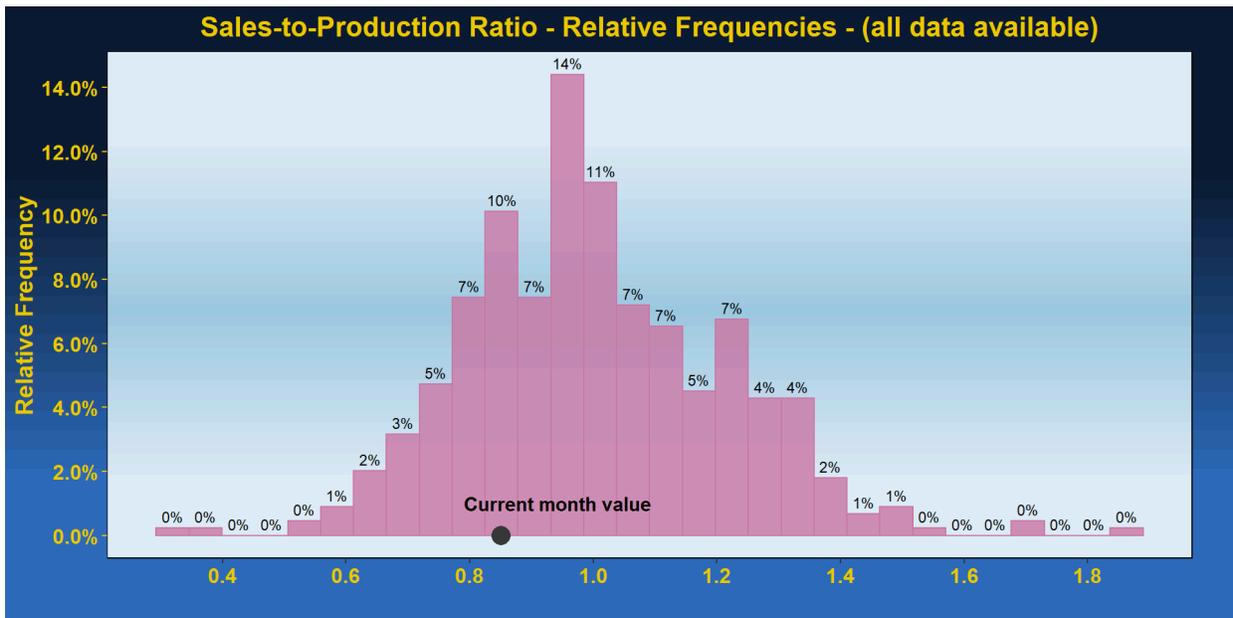
From month ago, the Inventory-to-Sales Ratio increased from 0.93 to 0.94 and from year ago the ratio expanded from 0.77.

Table of Monthly Observations

Date	Production	Purchases	Inventory	ISR
March 2023	1,967	1,839	14,325	0.77
February 2024	2,182	1,716	17,986	0.93
March 2024	2,193	1,867	18,313	0.94

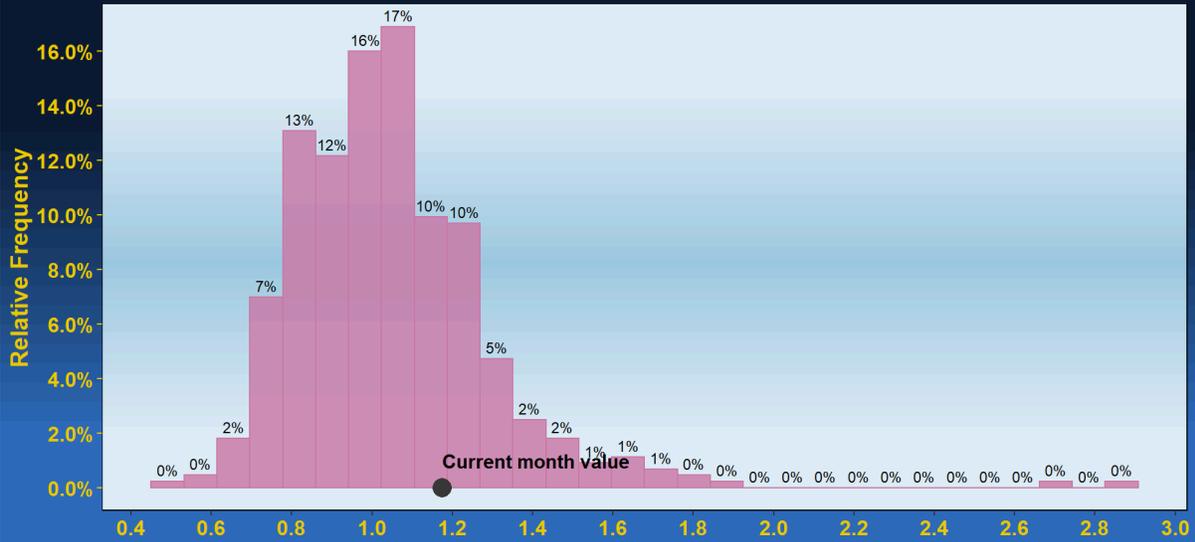


Sales-to-Production Ratio shows the replenishment/diminishment of inventory. Ratio above one signals diminishment and ratio below one replenishment of inventory stock.



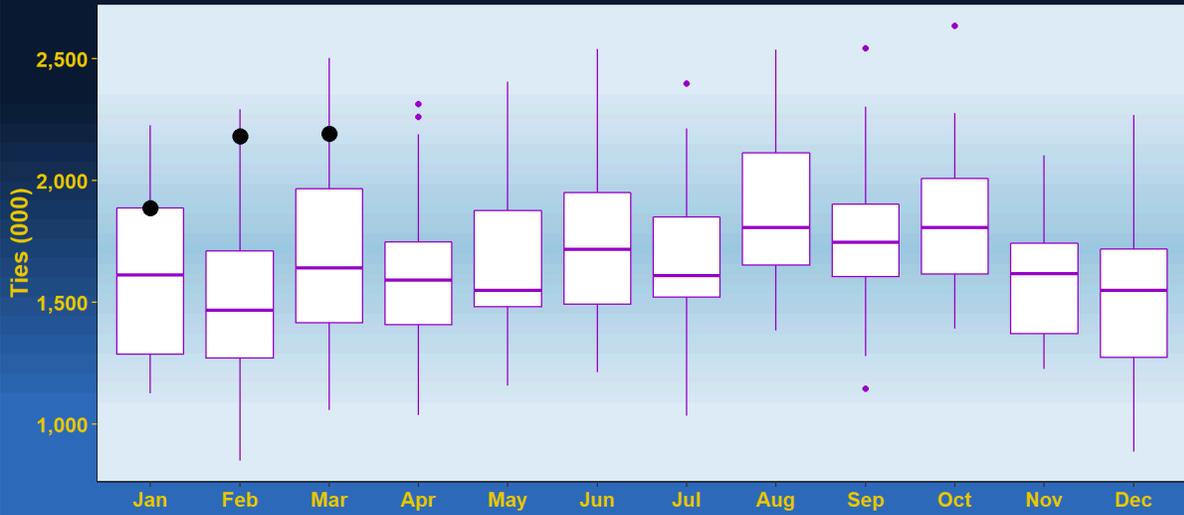
The following graph tells the same story as the graph above, just the ratio is reversed - Production-to-Sales Ratio.

Production-to-Sales Ratio - Relative Frequencies - (all data available)



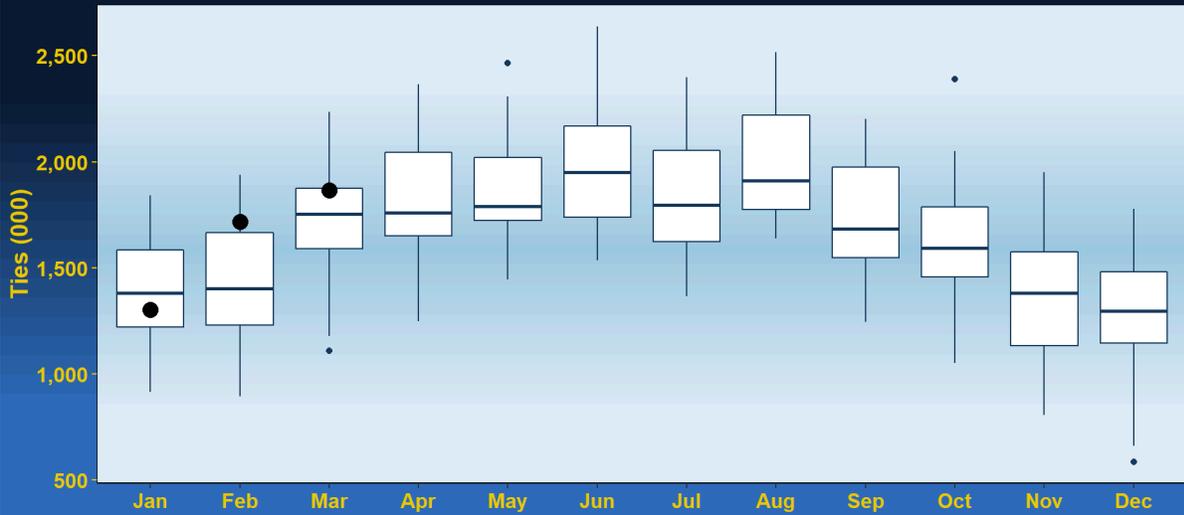
Monthly Production Statistics - (data since 2000)

Current year observations depicted as a black points



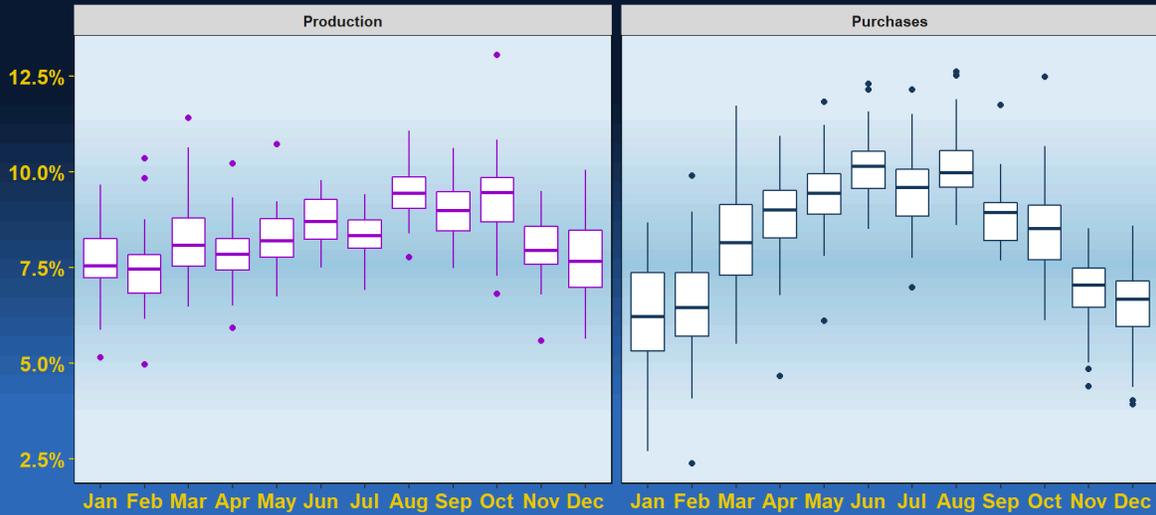
Monthly Purchases Statistics - (data since 2000)

Current year observations depicted as a black points

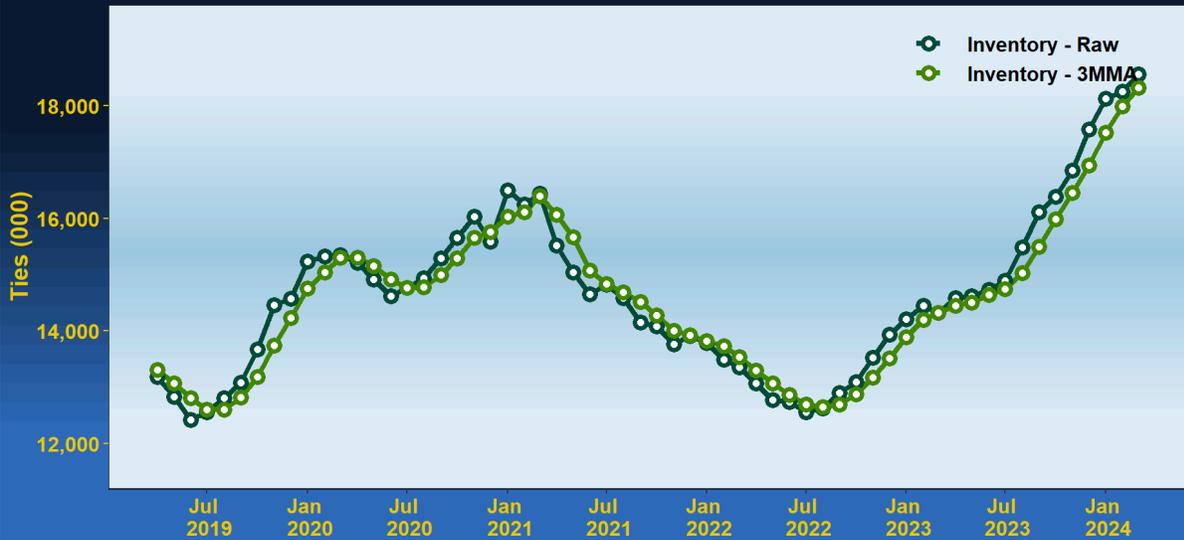


Monthly Pattern of Production and Purchases Statistics - Percent of Annual Total

Data since January 1988



Tie Inventory - Raw Monthly and 3MMA Data - (last 60 months of data)



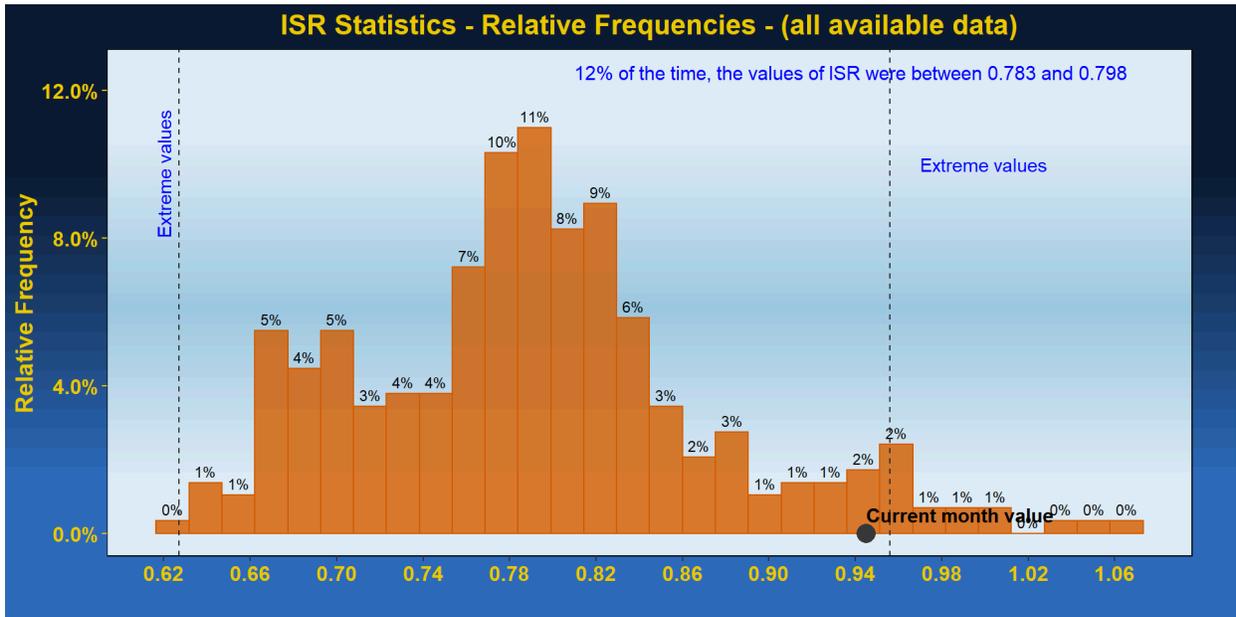
Monthly Patterns of Inventory - (data since 2000)

Monthly average depicted with solid green line, current year observations depicted as black points





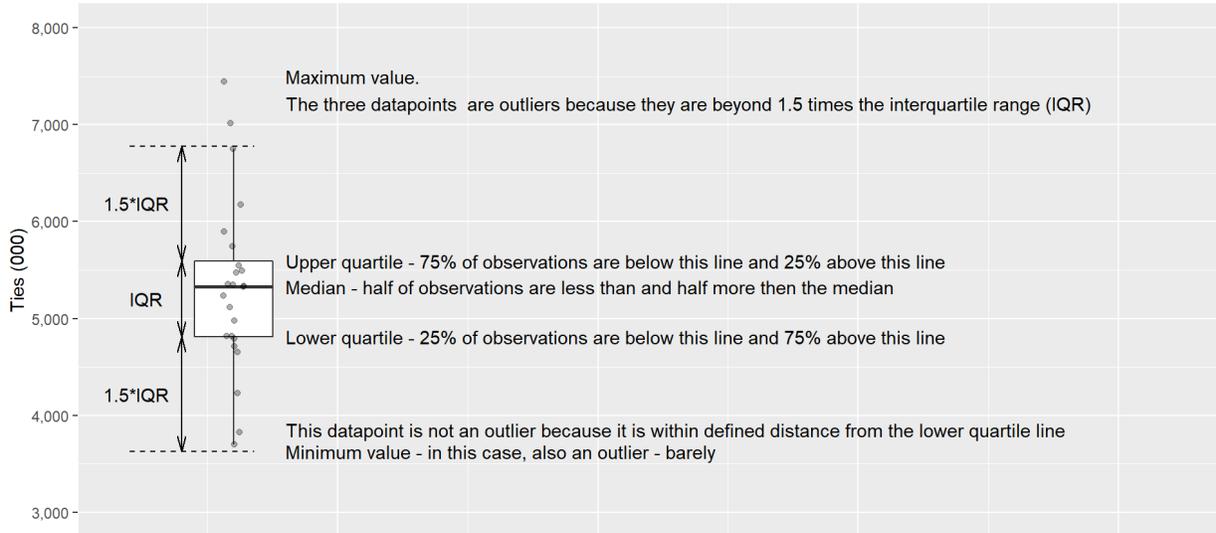
Inventory-to-Sales Ratio (ISR) histogram of relative frequencies shows the monthly ISR data distribution and the black point represents the value for the current reporting month.



Appendix

Box Plot Explained

Underlying data displayed as 'jittered' points



Histogram of Relative Frequencies Explained

